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American colleges and universities have long been deeply involved in research sponsored by the federal government. The total cost of such research, which is conducted primarily in the service of government missions, has been borne jointly by the government and the universities. In recent years, a growing concern with the costs of government-sponsored research has revealed some misunderstanding of the federally prescribed accounting procedures used to determine the extent to which institutions receive government reimbursement for the costs they incur in providing support for government-sponsored research. Recognizing that such misunderstanding ultimately could work to the detriment of both the government and the universities, the American Council on Education appointed an Ad Hoc Committee on Indirect Costs to study variations among universities in the procedures they use to allocate the costs of research. The committee subsequently prepared this brochure in an effort to explain factors that are involved in the determination of the rates at which institutions are reimbursed by the government for the indirect costs of research. (Author/JS)

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# Direct and Indirect Costs of Research at Colleges and Universities

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AMERICAN COUNCIL ON EDUCATION**

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## **Direct and Indirect Costs**

### **of Research**

### **at Colleges and Universities**

The operation of any enterprise involves costs which range from those that pertain to a specific project to those that are general in their application. For administrative and accounting purposes, these costs are grouped into two categories—direct and indirect. Many types of costs, however, are not discretely a direct cost or an indirect cost, and may appear in either category, depending on the circumstances. In this regard, the costs of federally sponsored research at educational institutions are no exception.

The basic regulations for ascertaining the costs of federally sponsored research at educational institutions are contained in Bureau of the Budget Circular A-21, a document designed to provide a governmentwide approach to the determination of such costs in the performance of work under Federal grants and contracts.

In any consideration of the relationship and importance of indirect costs to the conduct of sponsored research, six points must be clearly understood at the outset.

1. Indirect cost rates provide for the recovery of *only* those costs that are actually incurred. (It should be noted that there are several elements of cost for which Bureau of the Budget Circular A-21 does not permit any recovery by the institution.)

2. All rates for the reimbursement of indirect costs are calculated using actual expenditure data, distributed as prescribed in government regulations as set out in Circular A-21.
3. All calculations of the indirect cost rate are audited by government auditors.
4. Depending upon how an institution organizes the management of its research, some costs may be considered either direct or indirect, *but not both*.
5. These differences in organization for the management of research are the major reason for differing indirect cost rates among institutions, but such differences in rates do not affect total costs. If indirect costs go up, direct costs come down correspondingly; total costs remain unchanged. But the amount of total costs *recovered by the institution* may be affected by a change in the mixture of indirect and direct cost elements.
6. Although indirect cost rates vary among individual institutions, the variance is unrelated to whether an institution is publicly or privately controlled.

Let us now review each of these points in more detail.

### **Indirect costs are real costs.**

In undertaking any research project, federally sponsored or otherwise, an educational institution must cover two components of costs: those directly attributable to the specific project, and others incurred for the general support and management of research. The classification of particular expenditures as direct or indirect costs depends in part on the institution's organization for managing its business affairs and its methods of managing research. The two classes of expenditure, however, are equally necessary to achieve the work objectives, and one is just as much a true cost as the other. The institution becomes committed to incurring costs in both categories when it assumes stewardship of a sponsored research project.

Circular A-21, first published in 1958, was a consequence of the Federal government's desire to improve the methods of cost determination for federally sponsored research. The Circular followed closely the principles that several agencies already had set for the determination of costs of sponsored research at educational institutions. It was developed by the Bureau of the Budget with the active participation of Federal agencies sponsoring research and after consultation with representatives of educational institutions. It has been amended from time to time when experience showed the need for clarification. The most recent amendments were issued in January 1969.

Circular A-21 deals wholly with the *costs* of research. Its terms clearly exclude any provision for profit or other increment above cost. According to A-21, the costs under a federally sponsored research grant or contract include: (1) all those expenses that have been incurred solely for work on the project (direct costs); and (2) a share of those other costs that are incurred primarily for necessary supporting administrative and service functions related to the sponsored research project (indirect costs). When these two classes of expenditures have been determined, using the principles set forth in Circular A-21, they must be added to obtain the *total costs* of the research project. (This total excludes certain types of expenditure which A-21 classifies as "unallowable.")

**Direct costs** usually include costs of the following types:

**Salaries and wages:** Salaries and wages of persons fully employed on the research project, and a percentage of the salaries of those employed part time in proportion to their efforts on the project.

**Personnel benefits:** Personnel fringe benefits, such as FICA and retirement plan contributions. (In some situations these are categorized as indirect costs.)

**Supplies:** Consumable supplies needed exclusively for the project.

**Travel and communication:** All such charges that are directly incurred for the project.

**Equipment:** Usually, the costs of equipment acquired for specific use in the research, as set forth in the terms of the grant or contract.

*Computer use:* Computer time and necessary supporting services, calculated in accordance with an approved rate schedule for the facility concerned.

*Alterations and renovations:* Extent to which costs of alterations and renovations are recoverable as direct costs, as determined by specific agreement in the grant or contract.

**Indirect costs**, on the other hand, are usually divided into the following categories of supporting activities:

*General administration and general expense:* Accounting, payroll, administrative offices, etc.

*Research administration:* Personnel and other costs of offices whose responsibility is the administration of research.

*Plant operation and maintenance:* Utilities, janitorial services, routine maintenance and repairs, etc.

*Library expenses:* Books, library staff, etc.

*Departmental administration expenses:* Administrative costs at the college and departmental level.

*Depreciation or use allowance:* For buildings and equipment, excluding those paid for by the Federal government.

### **Indirect cost rates are calculated according to government guidelines.**

The rate for reimbursement of indirect costs is itself calculated according to the procedure set forth in Circular A-21 of the Bureau of the Budget.

The first step is to ascertain the total expense incurred by the institution for the operation of all its administrative and central or supporting service activities described above as indirect costs. The computation of this figure involves an analysis of the institution's financial data in order to calculate the total amount of indirect costs incurred by all of the programs of the institution, including sponsored and other organized research.



The next step is to distribute the total amount of institutional indirect costs thus developed among the three basic functions of the institution. These functions are defined in Circular A-21 as: (1) Instruction; (2) Organized Research (the major portion of which is likely to be government-sponsored research); and (3) Other Institutional Activities.

For example, an institution may distribute its costs of plant operation and maintenance among the three functions in proportion to the amount of space occupied by each, or in proportion to the amount of salaries and wages incurred by each. This distribution establishes a pool of total indirect costs attributable to organized research as distinguished from indirect costs attributable to Instruction and to Other Institutional Activities.

The final step is to establish the actual indirect cost rate as a percentage of some appropriate base. In accordance with Circular A-21, the normal practice is to use as the base the total salaries and wages paid as direct costs of research projects. An institution whose indirect costs amount, for example, to 50 percent of these salaries and wages would find that these same costs amount to about 33 1/3 percent of the total direct costs. Regardless of what base is used, the rate is determined by finding the ratio that the total of the indirect costs attributable to sponsored research bears to the base. This ratio, expressed as a percentage of the base, is then applied to each of the individual research grants and contracts at the institution to determine the portion of the indirect costs to be recovered.

When equity to the government requires it, an institution may have more than one indirect cost rate, a separate calculation being made, for instance, for a medical school or for projects conducted at remote locations. When separate rates are required, each is calculated in accordance with the procedures established by Circular A-21, using costs attributable to the separate location or organizational unit.

### **Indirect cost rates are audited by government auditors.**

Colleges and universities do not themselves determine the ultimate costs of research projects, either direct or indirect. All such costs are subject to audit by the Federal government. When all of the above calculations have been made, the institution prepares an annual indirect cost proposal in the manner described above and submits its working papers and supporting data to the government's appropriate audit agency for review. After careful examination and audit of all costs by the government audit agency, any disagreement about allowable indirect costs or the resulting indirect cost rate is settled by negotiations between the institution on the one hand and representatives of the several interested Federal agencies on the other. An agreement is reached between the government and the institution on the indirect cost rate for the year in negotiation.

### **Some costs may be classified either as direct or as indirect.**

The way in which an institution organizes its business and administrative affairs has a direct bearing on whether costs fall within the direct or the indirect category. Examples of costs that may be treated either as direct or as indirect costs, depending upon institutional management procedures, include:

- Secretaries
- Administrative and clerical personnel
- Purchasing
- Social Security, retirement contributions, and group insurance
- Vacations, holidays, and sick leave



Hospitalization and medical services  
Postage and communications  
    (both local and long distance)  
Stationery and office supplies  
Stockroom personnel  
Books and periodicals  
Electrical power  
Janitorial services  
Security expenses  
Liability insurance, workmen's compensation, etc.  
Office equipment  
Buildings and building alterations

For example, one institution may assign secretaries directly to research projects, and thereby be able to recover their salaries as direct costs. Another institution may decide that secretarial time will be more efficiently used if departmental secretarial pools are maintained, with projects drawing upon the departmental pool when they need such services. In an institution with departmental pools, secretarial costs could be recovered as part of the indirect costs. In addition, some institutions are so organized that certain other supporting services are made commonly available to research programs as well as to academic departments, because centralization is believed to effect the best use of supporting staff, to provide better management controls, to minimize idle time, and to offer superior results at lower costs. Thus, the method of organization materially influences the indirect cost rate, but does not materially affect the total cost of performing the research.

### **Institutional organization affects the indirect cost rate.**

Variations in organization and accounting practices from institution to institution are largely responsible for differences in indirect

cost rates. In theory, it makes no difference in the total cost since both types of costs are real and are actually incurred. In practice, experience has shown that under application of the current regulations, if more elements are listed as direct costs, the amount recovered from the sponsor may be somewhat greater. Of course, the total costs of doing the research remain unchanged by the removal of secretaries' salaries or the costs of a telephone from the indirect cost classification to the direct cost classification or vice versa. In the first instance the indirect cost rate goes down but the direct costs of a project go up. The total costs to the sponsor remain substantially the same. In addition, a careful review is made by a government auditor to assure that any item of expense, or any class of items, is consistently treated at any given institution (or major institutional component where a separate rate is computed) as either direct or indirect cost, and that no item appears in both categories.

**No category of institutions  
averages a higher indirect  
cost rate than any other category.**

All colleges and universities calculate their indirect cost rates in accordance with Bureau of the Budget Circular A-21. Although there certainly are differing rates among individual institutions, most of the differences are due to the differing organizational and accounting approaches discussed in section four above. It is occasionally stated that indirect cost rates of private universities are higher than those of state institutions. The facts do not bear this out. On the contrary, recent studies have shown that although, for the reasons previously described, there are sizable differences among institutions in their indirect cost rates, these differences are not related to whether the institutions are public or private. In fact, the average rates for the state and private institutions covered by the studies are almost identical.

In summary, for the reasons elaborated above, an indirect cost rate itself has little meaning. The percentage figure must be interpreted in terms of the base on which it is calculated and with reference to the allocation (between the direct and indirect categories) of costs incurred by the institution. It is illogical to compare indirect cost rates among institutions or to draw inferences on the basis of the rate alone concerning the reasonableness of indirect cost reimbursement.

Prepared by the *Ad Hoc Committee on Indirect Costs*, appointed by the Commission on Federal Relations, American Council on Education.

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